



## Available Model

### PSI-DFC-1L

Calibration is the process of comparing a measurement device against an equal or a better standard to verify the closeness of the measurement device to the standard. The standard instrument, commonly called a calibrator, is generally required to be more accurate than the instrument under calibration. Calibrators are characterized by high accuracy, reproducibility, high reliability and stability.

In order to ensure that the accuracy of the measurement stays within the claimed specifications, calibration of flow (also pressure and temperature) measuring instruments needs to be carried out on a periodic basis, normally once a year.

#### Salient Features

- ☞ Primary Standard
- ☞ Flow Accuracy  $\pm 2\%$
- ☞ Auto Ranging
- ☞ Fully Portable
- ☞ Tracks Multiple Bubbles
- ☞ Average Mode
- ☞ Wide Measuring Range
- ☞ Measures Flow from Pressure or Vacuum Source



Model PSI-DFC-1L is an easy to use air flow calibrator which can be used for accurately calibrating low flow air sampling pumps rotameters, digital flow meters etc quickly and reliably with accurate and reproducible results. It also finds application in flow measurement in Gas-Chromatography systems.

Model PSI-DFC-1L employs two sets of IR transmitter-receiver pairs for detection of the presence of a liquid soap bubble in a glass flow cell. The flow is computed from time of flight of the soap bubble between these two fixed set of sensors.

Model PSI-DFC 1L comprises of a highly precise glass flow-cell, two sets of IR sensors, an electronics unit, and an arrangement for bubble formation. The bubble formation process is very simple and comprises just pressing of the bulb to raise the level of liquid soap above the gas opening. The electronic unit is a microprocessor based unit which performs the tasks of interfacing with IR sensors, timing, computations and operator interface.

#### Detailed Technical Specifications:

<b>Flow Measuring Range</b>	From 1.00 cc/min to 500 cc/min - auto ranging
<b>Flow Sensor</b>	Optically tracked Soap bubble
<b>Flow computation methodology</b>	Volume $\div$ Time of flight of soap bubble
<b>Accuracy</b>	2 % of Full Scale
<b>Display</b>	16 character alphanumeric backlit LCD Module
<b>Operating Keys</b>	2 Nos.
<b>Key Functions</b>	Average, Reset
<b>Power Supply</b>	6 VDC through a adaptor for 110-230 V AC, or Optional- Built-in rechargeable Li-ion Battery with external Charger
<b>Dimensions &amp; Weight</b>	23 cm (H) x 15cm (W) x 14cm (D) Wt. - 1.25 Kg.

#### Accessories

Soap solution for Digital Flow Calibrator, Filter cartridges, Carrying case / bag

#### Related Services

Flow calibration of own and third party instruments

#### Related Products

**Digital Air Flow Calibration System** Model PSI- DFCS-1L, PSI- DFC-1M, PSI- DFCS-1H

**Digital Orifice Flow Calibrator** Model PSI – OFC1, Model PSI-OFC2, Model PSI-OFC3

**Digital Flow Meter** Model PSI-DFM 1L, Model PSI-DFM 1M, Model PSI-DFM 1H

**Top Loading Orifice Calibrator** Model PSI-TLOC1 & PSI –TLOC2.

**Air Flow Calibrator** PSI – AFC-1L, PSI- AFC-1M, PSI- AFC-1H

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